

## PATENT ABSTRACTS OF JAPAN

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B41M 5/30

B41M 5/26

(21)Application number : 01-009058

(71)Applicant : TOPPAN PRINTING CO LTD

(22)Date of filing : 18.01.1989

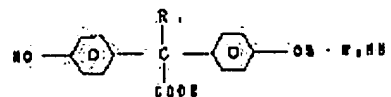
(72)Inventor : WATANABE JIRO  
SHIMIZU TOYOKO  
HINO YOSHIHIRO

## (54) REVERSIBLE THERMOSENSITIVE RECORDING MEDIUM

## (57)Abstract:

PURPOSE: To chemically develop or discharge a color only by controlling thermal energy by providing a color developer/subtractor which is the salts of bis(hydroxyphenyl) acetic acid or bis(hydroxyphenyl) butyric acid and higher aliphatic amine.

CONSTITUTION: A recording medium consists of a recording layer containing a leuco compound, a color developer/subtractor which develops or subtracts a color due to thermal reaction with the leuco compound and a binder as main components, provided on a support. The color developer/subtractor is the salts of bis(hydroxyphenyl) acetic acid or bis(hydroxyphenyl) acetic acid and higher aliphatic amine. More clearly, coating liquid for a recording layer is obtained by dissolving the binder in a coating liquid prepared by dispersing or dissolving dye in water or an organic solvent, and adding thickener or white pigment as liquid quality improver. This coating liquid is applied to a support such as paper, plastic film or sheet, and then is dried to form a recording layer.



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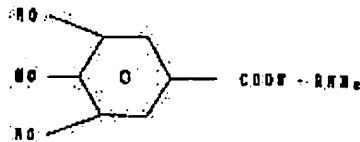
(21)Application number : 01-009059 (71)Applicant : TOPPAN PRINTING CO LTD  
 (22)Date of filing : 18.01.1989 (72)Inventor : WATANABE JIRO  
 SHIMIZU TOYOKO  
 HINO YOSHIHIRO

(54) REVERSIBLE THERMOSENSITIVE RECORDING MEDIUM

(57)Abstract:

PURPOSE: To chemically carry out a color development and discharging only under thermal energy control by using a color developer/subtractor consisting of salts of gallic acid and higher aliphatic amine expressed by a special formula.

CONSTITUTION: A recording medium consists of a recording layer based on a leuco compound and a color developer/subtractor which develops or subtracts colors by thermal reaction with the leuco compound, and a binder. The color developer/subtractor is salts of gallic acid and aliphatic amine expressed by formula (R is an alkyl group with eight or more carbons). More clearly, the binder is allowed to be dissolved in a coating liquid dispersed uniformly in water or an organic solvent. In addition, thickener or white pigment as liquid quality improver is added to this solution to prepare a recording layer coating liquid. This liquid is applied to a support such as paper, plastic film or sheet, and then dried to provide a recording layer.



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PATENT ABSTRACTS OF JAPAN

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G11B 7/24

(21)Application number : 03-219537 (71)Applicant : MATSUSHITA ELECTRIC IND CO LTD  
(22)Date of filing : 30.08.1991 (72)Inventor : KISHIMOTO YOSHIO  
SUZUKI MASAOKI

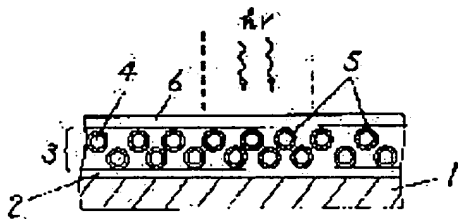
(54) REWRITABLE RECORDING MEDIUM AND ITS RECORDING METHOD

(57)Abstract:

PURPOSE: To provide a recording medium wherein a recording operation and an erasing operation can be performed reversibly by means of light or heat by a recording layer wherein the following are contained: coloring particles whose surface is provided with a crystal nucleus formation ability as crystalline organic molecules; crystalline organic molecules; and a transparent matrix polymer.

CONSTITUTION: A polyester sheet provided with an aluminum vapor-deposited reflection layer 2 is used as a substrate 1. The reflection layer 2 is coated to a thickness of 13 $\mu$ m, with a liquid in which the following are dispersed and dissolved in tetrahydrofuran: hydroxystearic acid as crystalline organic molecules; a phenol-based antioxidant as an additive; a vinyl chloride-vinyl acetate copolymer as a transparent matrix polymer; and red glass beads in an average of 15 $\mu$ m as coloring particles 4.

Thereby, a recording layer 3 is formed. In addition, a UV-curing acrylic resin is coated as a surface protective layer 6. The title recording medium becomes transparent at about 70 to 90°C, and its recording operation can be performed at 100°C by using a semiconductor laser. The recording durability of the recording medium amounts to about 600 times.



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